

CLAIMS

- sub B1
1. A monolithic photodetector including a photodiode, a precharge MOS transistor, a control MOS transistor, and a read MOS transistor, the photodiode and the precharge transistor being formed in a same substrate of a first conductivity type, wherein
- 5 the photodiode includes a first region of a second conductivity type formed under a second region of the first conductivity type more heavily doped than the substrate, and under a third region of the second conductivity type, more heavily doped than the first region, the second and third regions being separate, the first region forming a source region of the second conductivity type of the precharge MOS transistor, the second and
- 10 third regions being connected, respectively, to a fixed voltage and to a gate of the control transistor.
2. The photodetector of claim 1, further including a well of the first conductivity type, more heavily doped than said substrate, in which the first region is
- 15 formed.
3. The photodetector of claim 1, wherein the first conductivity type is type P and the second conductivity type is type N.
- 20 4. The photodetector of claim 2, wherein the substrate, the well, and the second region are maintained at a low reference voltage of the circuit.
- add a1